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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/575,760	04/13/2006	Markus Klumpe	289246US0PCT	5123

22850 7590 01/04/2008  
OBLON, SPIVAK, MCCLELLAND MAIER & NEUSTADT, P.C.  
1940 DUKE STREET  
ALEXANDRIA, VA 22314

EXAMINER
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KEYS, ROSALYND ANN

ART UNIT	PAPER NUMBER
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1621

NOTIFICATION DATE	DELIVERY MODE
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01/04/2008

ELECTRONIC

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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**Office Action Summary**

Application No.

10/575,760

Applicant(s)

KLUMPE ET AL.

Examiner

Rosalynd Keys

Art Unit

1621

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 12 October 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 and 5-10 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 and 5-10 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                     | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

**DETAILED ACTION**

***Status of Claims***

1. Claims 1-3 and 5-10 are pending.  
Claims 1-3 and 5-10 are rejected.  
Claim 4 is canceled.

***Claim Rejections - 35 USC § 102***

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

3. Claims 1-3 and 5-10 are rejected under 35 U.S.C. 102(a) as being anticipated by Ruland et al. (WO 03/091190 A1, which is equivalent to US 2005/0170991 A1).

Ruland et al. disclose the claimed alkoxylate mixture, process for preparing said alkoxylate mixture, and claimed uses of said alkoxylate mixture (see entire disclosure, in particular paragraphs 0001 to 0090).

***Claim Rejections - 35 USC § 103***

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

6. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

7. Claims 1-3 and 5-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Dahlgren et al. (WO 94/11331) in view of Dahlgren et al. (WO 94/11330) and further in view of Clement et al. (WO 01/04183 A1).

Dahlgren et al. '331 teach an alkoxylate mixture having the formula  $C_5H_{11}CH(C_3H_7)CH_2O(C_2H_4O)_p(B)_rH$  wherein B is an alkyleneoxy group having 3-4 carbon atoms, p is 1-10 and r is 1-6 (see entire disclosure, in particular pages 1-3). The different alkyleneoxy groups may be added randomly or in block (see page 2, lines 5-7). The alkoxylates are prepared by reaction of 2-propyl heptanol with an alkylene oxide using a conventional catalyst (see page 2, lines 22-35). The alkoxylates have use as a surface-active component in detergent compositions (see page 1, lines 3-33).

The alkoxylate mixture of Dahlgren et al. '331 differs from the instant alkoxylate mixture in that the alkoxylate mixture of the instant invention requires the  $C_5H_{11}$  to be present with a

specific structure and in specific proportions. One proportion requires C<sub>5</sub>H<sub>11</sub> to be present as n-C<sub>5</sub>H<sub>11</sub> with the other portion being present as C<sub>2</sub>H<sub>5</sub>CH(CH<sub>3</sub>)CH<sub>2</sub> and/or CH<sub>3</sub>CH(CH<sub>3</sub>)CH<sub>2</sub>CH<sub>2</sub>.

One having ordinary skill in the art at the time the invention was made would have found it obvious to arrange the C<sub>5</sub>H<sub>11</sub> portion in any manner or amount as desired, including the claimed manner, absent a showing of unexpected results.

The alkoxylate mixture of Dahlgren et al. '331 differs from the instant alkoxylate mixture in that Dahlgren et al. '331 do not teach that the ethyleneoxy groups and the propyleneoxy groups have to be arranged in blocks in a specific sequence. However, Dahlgren et al. '331 suggest such an arrangement, since Dahlgren et al. '331 teach that ethyleneoxy groups and the propyleneoxy groups can be arranged in block (see page 2, lines 5-7).

Dahlgren et al. '330 teach an alkoxylate mixture similar to the alkoxylate mixture of Dahlgren et al. '331 (see entire disclosure, in particular page 1, line 25 to page 2, line 10). Dahlgren et al. '330 teach that the hydrophobic properties of the hydrocarbon chain have been enhanced by adding hydrophobic alkyleneoxy groups closest to the alcohol.

One having ordinary skill in the art at the time the invention was made would have been motivated to arrange the ethyleneoxy groups and the propyleneoxy groups of the alkoxylate mixture of Dahlgren et al. '331 in the manner taught by Dahlgren et al. '330, in order to enhance its hydrophobic properties.

The process of making the alkoxylate mixture of Dahlgren et al. '331 differs from the instant process in that Dahlgren et al. do teach utilizing conventional catalysts and not a dmc catalyst.

Clement et al. teach that a dmc catalyst can be used in place of a conventional catalyst for polymerization of alkylene oxides allowing one to obtain the polyethoxylated compounds in good yield (see entire disclosure, in particular pages 1-3).

One having ordinary skill in the art at the time the invention was made would have been motivated to utilize a dmc catalyst, as taught by Clement et al., in the process of Dahlgren et al. '331 as it would allow one to obtain the alkoxylate mixture in good yield.

### **Response to Amendment**

#### Specification

8. The objection to the specification as failing to provide proper antecedent basis for the claimed subject matter is withdrawn, due to the amendments to claims 5, 8 and 9, filed October 12, 2007.

9. The declaration under 37 CFR 1.132 filed October 12, 2007 is insufficient to overcome the rejection of claims 1-9 based upon the rejection under 35 U.S.C. 103(a) as being unpatentable over Dahlgren et al. (WO 94/11331) in view of Dahlgren et al. (WO 94/11330) and further in view of Clement et al. (WO 01/04183 A1) as set forth in the last Office action because: the applicants have not shown that the results obtained are unexpected.

#### Rejection of Claims 1-3 and 5-9 under 35 U.S.C. 102(a) as being anticipated by Ruland et al. (WO 03/091190 A1, which is equivalent to US 2005/0170991 A1)

10. Applicant's arguments filed October 12, 2007 have been fully considered but they are not persuasive because Ruland et al. does teach and alkoxylate mixture of the formula (I) and in particular teach an alkoxylate mixture comprising 79 to 99% by weight, preferably 85 to 96% by weight of alkoxylates A1, in which C5H11 has the meaning n-C5-H11 and 1 to 30% by weight, preferably 4 to 15% by weight of alkoxylates A2, in which C5H11 has the meaning C2H5CH(CH3)CH2 and/or CH3CH(CH3)CH2CH2 (see paragraphs 0009-0013 and 0033-0035). The claimed invention can contain more than just C-10 alcohols because the claims are directed to an alkoxylate mixture **comprising (emphasis added)** alkoxylates of the formula (I). The term comprising allows for the presence of alkoxylates in addition to those of the claimed formula (I).

Further, the fact that the alkoxylate mixture of Ruland et al. also contains alkoxylates having more than 10 carbons is not a teaching away from the claimed invention, especially since the alkoxylate mixture of Ruland et al. also includes different isomeric structures of a C-10 alcohol and the claimed invention does not exclude the presence of other alkoxylates.

For the above reasons this rejection is maintained.

Rejection of claims 1-3 and 5-9 under 35 U.S.C. 103(a) as being unpatentable over Dahlgren et al. (WO 94/11331) in view of Dahlgren et al. (WO 94/11330) and further in view of Clement et al. (WO 01/04183 A1)

11. Applicant's arguments filed October 12, 2007 have been fully considered but they are not persuasive.

The Applicants are right that Dalgren '331 is silent with respect to the alkoxylate being a mixture of isomers. However, the selection of the makeup of the C<sub>5</sub>H<sub>11</sub> portion of the alkoxylate is well within the capabilities of one having ordinary skill in the art absent a showing of unexpected results. The selection of any order of the ethyleneoxy and propyleneoxy groups of Dalgren '331, including in the claimed order is within the capabilities of one having ordinary skill in the art absent a showing of unexpected results. The Applicants have not shown that the results that they have obtained are unexpected.

For the above reasons this rejection is maintained.

### **Conclusion**

12. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the

THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

13. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rosalynd Keys whose telephone number is 571-272-0639. The examiner can normally be reached on M, R & F 5:30-7:30 am & 1-5 pm; T & W 5:30 am-4 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yvonne Eyler can be reached on 571-272-0871. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Rosalynd Keys/  
Primary Examiner  
Art Unit 1621

December 23, 2007